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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/576,056	04/18/2006	Athanassios Tzikas	4-22967/A/PCT	2148	
	7590 11/21/200 LTY CHEMICALS CO	EXAMINER			
PATENT DEPA		KLEMANSKI, HELENE G			
P O BOX 2005		ART UNIT	PAPER NUMBER		
TARRYTOWN	I, NY 10591-9005	1793			
			MAIL DATE	DELIVERY MODE	
		11/21/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No. Applic		Applicant(s)	plicant(s)				
Office Action Summary		10/576,05	3	TZIKAS ET AL.					
			Examiner	· · · · · · · · · · · · · · · · · · ·	Art Unit				
		Helene Kle		1793					
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).									
Status	·				•				
1)	Responsive to communication(s) file	ed on							
′=	Since this application is in condition	,			secution as to the	e merits is			
٥,۵	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.								
Disposition of Claims									
4) <b>⊠</b>	Claim(s) 1-15 is/are pending in the a	pplication.							
•	4a) Of the above claim(s) is/are withdrawn from consideration.								
	5) Claim(s) is/are allowed.								
6)⊠	6)⊠ Claim(s) <u>1-15</u> is/are rejected.								
7)	Claim(s) is/are objected to.								
8)	8) Claim(s) are subject to restriction and/or election requirement.								
Applicati	on Papers								
9) 又	The specification is objected to by the	e Examiner							
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.									
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).									
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).									
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.									
Priority u	ınder 35 U.S.C. § 119								
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)⊠ All b)□ Some * c)□ None of:									
	1. Certified copies of the priority documents have been received.								
	2. Certified copies of the priority documents have been received in Application No								
	3. Copies of the certified copies of the priority documents have been received in this National Stage								
	application from the International Bureau (PCT Rule 17.2(a)).								
* See the attached detailed Office action for a list of the certified copies not received.									
Attachmen	t(s)								
1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)									
	e of Draftsperson's Patent Drawing Review (P nation Disclosure Statement(s) (PTO/SB/08)	'I O-948)		Paper No(s)/Mail Date  5) Notice of Informal Patent Application					
Paper No(s)/Mail Date <u>8/14/06</u> . 6) Other:									

### **DETAILED ACTION**

### Information Disclosure Statement

1. The references cited in the Search Report dated January 14, 2005 have been considered.

# Specification

2. The disclosure is objected to because of the following informalities: on page 4 of the specification, the formula (3h):

should be the formula

since the –NH group is already present on the naphthalene ring.

Appropriate correction is required.

# Claim Objections

3. Claim 1 is objected to because of the following informalities: in claim 1, the formula (3h):

should be the formula

since the –NH group is already present on the naphthalene ring. Appropriate correction is required.

## Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 5. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Meier et al. (US 2005/0034253).

Meier et al. teach a dye mixture comprising one or more dyes of the formula (I)

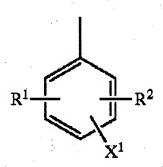
**(I)** 

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$$D^2$$
 $N=N$ 
 $N=N$ 

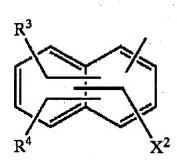
And one or more dyes of the formula (II)

wherein: (1) D<sup>1</sup> to D<sup>3</sup> are independently a group of the formula (1)



(1)

wherein  $R^1$  and  $R^2$  are independently  $C_{1-4}$  alkyl,  $C_{1-4}$  alkoxy, sulfo, carboxyl, nitro or halogen;  $X^1$  is  $-SO_2$ -Z; Z is  $-CH=CH_2$  or  $-CH_2CH_2Z^1$  and  $Z^1$  is hydroxyl or an alkalidetachable group; or (2)  $D^1$  to  $D^3$  are independently a naphthyl group of the formula (2)



(2)

wherein  $R^3$  and  $R^4$  are independently  $C_{1-4}$  alkyl,  $C_{1-4}$  alkoxy, sulfo, carboxyl, nitro or halogen and  $X^2$  has one of the meanings of  $X^1$ ; or (3)  $D^1$  to  $D^3$  are independently a group of the formula (9)

$$R^{12} = N$$

$$R^{13}$$

$$R^{14}$$

$$R^{14}$$

wherein  $R^{12}$  is H;  $R^{13}$  and  $R^{14}$  are independently H or sulfo; A is a polymethylene group of the formula - $(CR^{19}R^{20})_k$ - wherein k is an integer greater than 1 and  $R^{19}$  and  $R^{20}$  are H and  $X^3$  has one of the meanings of  $X^1$ ;  $R^0$  is a group of the formula (5)

$$Q^{1} \bigvee_{N} Q^{2}$$

$$(5)$$

wherein Q<sup>1</sup> and Q<sup>2</sup> are independently chlorine, fluorine or a group of the formula (7)

$$-N = N$$

$$W - SO_2 Z$$
(7)

wherein  $R^8$  is H,  $C_{1-6}$  alkyl or sulfo $C_{1-6}$  alkyl; W is unsubstituted or substituted phenylene,  $C_{2-6}$  alkylene, which may be interrupted by oxygen or naphthalene which is

unsubstituted or substituted by one or two sulfo groups and Z is as defined above; or  $R^0$  is a group of the formula (13)



wherein R<sup>21</sup> is C<sub>1-6</sub> alkyl or phenyl; R\* and R\*\* are independently H, C<sub>1-4</sub> alkyl or –CH<sub>2</sub>-SO<sub>3</sub>M; b, f and v are 1; T is hydroxyl and M is H, alkali metal or alkaline earth metal with the proviso that the dyes of the formula (I) and (II) contain at least one fiber-reactive group of the formula -SO<sub>2</sub>-Z. The dye mixtures are useful for dyeing or printing hydroxyl- or carboxamido-containing materials such as paper, cotton, etc. by ink-jet printing the material with an ink containing the above dye mixture. See paras. 0004-0005, paras. 0007-0017, paras. 0026-0035, paras. 0042-0050, paras. 0056-0058, paras. 0070-0071, paras. 0076-0077, para. 0123, paras. 0135-0137, paras. 0144-0145, para. 0162, para. 0170, examples 1, 5, 6, 8, 15, 16, 21, 23, 30, 32, 33, 64-69, 71, 72, 74 and 75, use examples 1-4 and claims 1-3, 6-8, 13, 15, 16, 20 and 21. The dye mixtures as taught by Meier et al. appear to anticipate the present claims.

6. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

## Claim Rejections - 35 USC § 103

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarz et al. (US 5,393,307 in view of Zamponi et al. (US 6,011,140).

Schwarz et al. teach a reactive dyestuff mixture comprising at least one vinylsulfonyltriazine dye of the formula (1.2)

wherein A<sup>1</sup> is of the formula

$$(SO_3H)_{0-1}$$
  $(HSO_3)_{1-3}$ 

R<sup>1</sup> is H, CH<sub>3</sub>, -CH<sub>2</sub>-CH<sub>2</sub> or -(CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub> and R<sup>2</sup> is of the formula

and at least one monofluorotriazine dye of the formulas 2.1 or 2.2 or fluorochloropyrimidine dye of the formulas 3.1 or 3.2. In addition, further dyes may be added to the mixture. The dye mixtures are useful for dyeing or printing hydroxyl- or carboxamido-containing materials such as paper, cotton, etc. by ink-jet printing the material with an ink containing the above dye mixture. See col. 2, line 20 – col. 5, line 5, col. 6, lines 25-26, examples 2 and 5 and claims 1 and 6. Schwarz et al. fail to teach the addition of at least one dye of applicant's formula (1) to the dye mixture.

Zamponi et al. teach a reactive dye of the formula

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wherein n is 1;  $R^1$  is H;  $R^2$  is H;  $G^1$  is hydroxyl;  $G^2$  is H or hydroxysulfonyl;  $G^3$  is a radical of the formula

$$\begin{array}{c|c}
R^{3} & R^{5} \\
\hline
 & R^{5} \\
\hline
 & SO_{2} - Y,
\end{array}$$

and D is a radical of the formula

$$\begin{array}{c|c}
R^{3} & R^{5} \\
\hline
 & SO_{2} - Y
\end{array}$$

wherein R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are each independently of the others H, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, halogen or hydroxysulfonyl; E is H, a heterocyclic anchor radical or an anchor radical of the aliphatic series; Y is vinyl or a radical of the formula

C<sub>2</sub>H<sub>4</sub>-Q

wherein Q is an alkali detachable group such as chlorine, bromine and OSO<sub>3</sub>H that is useful for dyeing or printing hydroxyl-containing or nitrogenous organic materials such as paper, cotton, etc. by printing the material with an ink containing the above dye. See

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col. 1, line 1 - col. 2, line 15, col. 2, line 56 - col. 5, line 64, col. 7, lines 40-67, col. 9, line 57 - col. 10, line 10, examples 27-36 and claims 1, 4-6, 8 and 11.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the dye mixture as taught by Schwarz et al. by incorporating the reactive dye as taught by Zamponi et al. because Zamponi et al. teach that the reactive dyes are useful in providing brilliant and fast dyeings of cellulosic materials such as cotton. It is prima facie obvious to combine the dyes, each taught for the same purpose, in order to form a third dye composition to be used for the very same purpose. See *In re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980). It is the examiner's position that when ingredients are well known and combined for their known properties, the combination is obvious absent evidence to the contrary.

#### Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Primary Examiner
Art Unit 1793

November 19, 2007